K001267

Special 510(k) Premarket Notification GE Medical Systems - System FiVe with Immersible IO Probes April 17, 2000

Attachment B:

Summary of Safety and Effectiveness Prepared in accordance with 21 CFR Part 807.92(c).



1.

GE Medical Systems

General Electric Company P.O. Box 414, Milwaukee, WI 53201

Section a):

Submitter: GE

GE Medical Systems

PO Box 414

Milwaukee, WI 53201

Contact Person: Allen Schuh,

Manager, Safety and Regulatory Engineering Telephone: 414-647-4385; Fax: 414-647-4090

Date Prepared: April 14, 2000

2. Device Name: GE Vingmed System FiVe Diagnostic Ultrasound with immersible IO probes.

Ultrasonic Pulsed Echo Imaging System, 21 CFR 892.1560, 90-IYO

3. Marketed Device: GE Vingmed System FiVe diagnostic ultrasound system, 510(k) Numbers K963315

and K991842 currently in commercial distribution.

- 4. <u>Device Description</u>: The GE Vingmed System FiVe with immersible IO probes is a full featured echocardiography imaging and analysis system. It consists of a mobile console approximately 67 cm wide, 110 cm deep and 140 cm high that provides digital acquisition, processing and display capability. The user interface includes a computer keyboard, specialized controls, small flat-panel displays and a color video CRT display monitor. This modification will provide users with alternate methods in preparing for intraoperative applications.
- 5. <u>Indications for Use</u>: The GE Vingmed System FiVe with immersible IO probes is intended for use by a qualified physician for ultrasound evaluation of abdominal, cardiac, pediatric, fetal, intraoperative (non-neurological), transesophageal, transvaginal, transrectal, peripheral vascular, small organ, neonatal and adult cephalic.
- 6. <u>Comparison with Predicate Device</u>: The GE Vingmed System FiVe with immersible IO probes is of a comparable type and substantially equivalent to the currently marketed GE Vingmed System FiVe. It has the same technological characteristics, is comparable in key safety and effectiveness features, uses the same basic design, construction, and materials, and has the same intended uses, operating modes and probes as the predicate device.

Section b):

- 1. <u>Non-clinical Tests</u>: The device has been evaluated for acoustic output, biocompatibility, sterilization effectiveness as well as thermal, electrical and mechanical safety, and has been found to conform with applicable medical device safety standards.
- 2. Clinical Tests: None required.
- 3. <u>Conclusion</u>: Intended uses and other key features are consistent with traditional clinical practice, FDA guidelines, and established methods of patient examination. The design and development process of the manufacturer conforms with 21 CFR 820, ISO 9001 and EN 46001 quality systems. The device conforms to applicable medical device safety standards and compliance is verified through independent evaluation with factory surveillance. Diagnostic ultrasound has accumulated a long history of safe and effective performance. Therefore, it is the opinion of GE Medical Systems that the GE Vingmed System FiVe with immersible IO probes is substantially equivalent with respect to safety and effectiveness to devices currently cleared for market.



MAY 1 2 2000

Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

Allen Schuh Manager, Safety & Regulatory Engineering GE Medical Systems P.O. Box 414 Milwaukee, Wisconsin 53201

Re: K001267

Modification (change of reprocessing) to GE Vingmed System FiVe

Dated: April 19, 2000 Received: April 20, 2000 Regulatory Class: II

21 CFR 892.1550/Procode: 90 IYN 21 CFR 892.1560/Procode: 90 IYO 21 CFR 892.1570/Procode: 90 ITX

Dear Mr. Schuh:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

This determination of substantial equivalence applies to the following transducers intended for use with the GE Vingmed System FiVe Diagnostic Ultrasound System, as described in your premarket notification:

Transducer Model Number

i8Lv i13Lv

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval) it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Good Manufacturing Practice requirement, as set forth in the Quality System Regulation (QS) for Medical Devices: General (GMP) regulation (21 CFR Part 820) and that, through periodic QS inspections, the FDA will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, the Food and Drug Administration (FDA) may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification does not affect any obligation you may have under sections 531 and 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This determination of substantial equivalence is granted on the condition that prior to shipping the first device, you submit a postclearance special report. This report should contain complete information, including acoustic output measurements based on production line devices, requested in Appendix G, (enclosed) of the Center's September 30, 1997 "Information for Manufacturers Seeking Marketing Clearance of Diagnostic Ultrasound Systems and Transducers." If the special report is incomplete or contains unacceptable values (e.g., acoustic output greater than approved levels), then the 510(k) clearance may not apply to the production units which as a result may be considered adulterated or misbranded.

The special report should reference the manufacturer's 510(k) number. It should be clearly and prominently marked "ADD-TO-FILE" and should be submitted in duplicate to:

Food and Drug Administration Center for Devices and Radiological Health Document Mail Center (HFZ-401) 9200 Corporate Boulevard Rockville, Maryland 20850

This letter will allow you to begin marketing your device as described in your premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus permits your device to proceed to market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4591. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its tollfree number (800) 638-2041 or at (301) 443-6597 or at its internet address "http://www.fda.gov/cdrh/dsmamain.html".

If you have any questions regarding the content of this letter, please contact Paul Gammell at (301) 594-1212.

Daniel G. Schultz, M.D.

Captain, USPHS

Sincerely yours,

Director, Division of Reproductive,
Abdominal and Radiological Devices
Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

Special 510(k) Premarket Notification GE Medical Systems - System FiVe with Immersible IO Probes April 17, 2000

Diagnostic Ultrasound Indications for Use Form

GE Vingmend System FiVe System

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

1	Mode of Operation											
Clinical Application	A	В	М	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (specify)	Other (specify)		
Ophthalmic												
Fetal		Р	Р	Р	Р	Р	Р		Р			
Abdominal		P	Р	Р	Р	Р	Р		P			
Intraoperative (specify)		P	Р	P	Р	Р	Р		P			
Intraoperative Neurological					·							
Pediatric		Р	P	Р	P	P	Р		P			
Small Organ (specify)		Р	P	Р		P	Р		Р			
Neonatal Cephalic		Р	Р	P	Р	Р	Р		Р	<u> </u>		
Adult Cephalic		Р	Р	Р	Р	Р	P		Р			
Cardiac		Р	Р	P	Р	P.	P		P	Р		
Transesophageal		Р	Р	P	Р	Р	Р		Р	<u></u>		
Transrectal		Р	Р	Р		Р	P		Р			
Transvaginal		Р	Р	Р	<u> </u>	P	P		. P			
Transuretheral									<u> </u>	<u> </u>		
Intravascular									ļ	 		
Peripheral Vascular		Р	Р	Р	Р	Р	P		Р			
Laparoscopic					ļ		<u> </u>			ļ		
Musculo-skeletal Conventional				<u> </u>					 			
Musculo-skeletal Superficial				<u> </u>		<u> </u>						
Other (specify)				ļ					`	<u>L</u>		

Musculo-skeletal Superficial				ļ_,						
Other (specify)									<u> </u>	
Additional Comments:	Cardia	c is Ad	lult an	d Pedia	itric and	cardiac	analysis.	Small org	gan includ	les breast
Intraoperative includes	abdom	inal, th	noracio	and P	V, Co	lor Doppl	er include	s Color M	۸,	
Combined includes B/N	Л, В/Со	lor M,	B/PW	D or C	WD, B/	Color/PW	D or CW[),		
	·									
	C	oncurre	ence of	CDRH, C	Office of	Device Eva	luation (OI	DE)/	/	

(Division Sign-Off)

Division of Reproductive, Abdominal, ENT,

and Radiological Devices

510(k) Number <u>KOOI26</u>

Prescription User (Per 21 CFR 801.109)

Special 510(k) Premarket Notification GE Medical Systems - System FiVe with Immersible IO Probes April 17, 2000

Diagnostic Ultrasound Indications for Use Form

GE Vingmend System FiVe with i8Lv Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation											
Clinical Application	A	В	М	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (specify)	Other (specify)		
Ophthalmic												
Fetal			ļ		ļ	<u> </u>			<u> </u>			
Abdominal									 			
Intraoperative (specify)		P	Р	Р	Р	P	Р		Р	7.		
Intraoperative Neurological						-			 			
Pediatric		Р	P	P	P	P	P		Р			
Small Organ (specify)												
Neonatal Cephalic			ļ				<u> </u>					
Adult Cephalic				<u> </u>			<u> </u>					
Cardiac		Р	Р	Р	P	Р	P		P	Р		
Transesophageal			ļ. ———	ļ	 		1					
Transrectal				<u> </u>								
Transvaginal						 			-			
Transuretheral			ļ	 		<u> </u>						
Intravascular			<u> </u>		 		 					
Peripheral Vascular		Р	P	P	P	<u>Р</u>	P		P.			
Laparoscopic			ļ		<u> </u>	 	 					
Musculo-skeletal Conventional					-		<u> </u>					
Musculo-skeletal Superficial			<u> </u>		 	-	<u> </u>	ļ	-			
Other (specify)			<u>l</u>	<u> </u>			L Annone	<u> </u>	<u> </u>	<u> </u>		

Peripheral Vascular		P	P	P	P	P	P	<u> </u>	P	
Laparoscopic							ļ	<u> </u>	 	
Musculo-skeletal Conventional								ļ		
Musculo-skeletal Superficial				<u> </u>						
Other (specify)						<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
N= new indication; P=								dix E		
Additional Comments:	Cardia	ic is A	dult an	d Pedia	tric and	d cardiac	analysis.			
Intraoperative includes	abdom	ninal, ti	horacio	and P	V, Co	lor Dopp	ler include	es Color N	Л,	
Combined includes B/N										
Other mode is Strain Ra	ate Ima	aging,	K991	842						
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Prescription User (Per 21 CFR 801.109)

and Radiological Devices

510(k) Number <u>KOOLJ</u>6

Special 510(k) Premarket Notification GE Medical Systems - System FiVe with Immersible IO Probes April 17, 2000

Diagnostic Ultrasound Indications for Use Form

GE Vingmend System FiVe with i13Lv Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

	Mode of Operation											
Clinical Application	Α	В	М	PWD	CWD	Color Doppler	Amplitude Doppler	Color Velocity Imaging	Combined (specify)	Other (specify)		
Ophthalmic												
Fetal												
Abdominal												
Intraoperative (specify)		Р	Р	P	Р	Р	Р		Р			
Intraoperative Neurological												
Pediatric												
Small Organ (specify)												
Neonatal Cephalic												
Adult Cephalic												
Cardiac		Р	Р	Р	Р	Р	Р		P	Р		
Transesophageal												
Transrectal									·	,		
Transvaginal												
Transuretheral												
Intravascular					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
Peripheral Vascular		Р	P	Р	P	P	Р		P			
Laparoscopic												
Musculo-skeletal Conventional									ļ			
Musculo-skeletal Superficial									ļ			
Other (specify) N= new indication: P= n									<u> </u>	<u> </u>		

Transrectal					ļ			ļ		
Transvaginal										
Transuretheral										
Intravascular										
Peripheral Vascular		P	Р	P	P	Р	Р		P	
Laparoscopic										
Musculo-skeletal Conventional				<u> </u>						
Musculo-skeletal Superficial								·		
Other (specify)										
N= new indication; P=	previou	usly cle	eared	by FDA	E= ad	ded unde	r Append	lix E		
Additional Comments:	Cardia	c is A	dult an	d Pedia	tric and	cardiac	analysis.			
Intraoperative includes	abdom	ninal, ti	horaci	c and P	V, Co	lor Doppl	er include	s Color N	Л,	
Combined includes B/N	1, B/C	olor M,	B/PW	D or C	ND, B/C	Color/PW	D or CW),		
Other mode is Strain Ra	ate Ima	aging,	K991	842						
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